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1 [Statistical sampling of microarchitecture simulation](#)



Roland E. Wunderlich, Thomas F. Wenisch, Babak Falsafi, James C. Hoe

 July 2006 **ACM Transactions on Modeling and Computer Simulation (TOMACS)**, Volume 16 Issue 3

Publisher: ACM Press

 Full text available: pdf(667.80 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Current software-based microarchitecture simulators are many orders of magnitude slower than the hardware they simulate. Hence, most microarchitecture design studies draw their conclusions from drastically truncated benchmark simulations that are often inaccurate and misleading. This article presents the Sampling Microarchitecture Simulation (SMARTS) framework as an approach to enable fast and accurate performance measurements of full-length benchmarks. SMARTS accelerates simulation by selective ...

Keywords: Microarchitecture simulation, SPEC CPU2000 simulation, cold-start bias, simulation sampling, statistical sampling

2 [SMARTS: accelerating microarchitecture simulation via rigorous statistical sampling](#)



Roland E. Wunderlich, Thomas F. Wenisch, Babak Falsafi, James C. Hoe

 May 2003 **ACM SIGARCH Computer Architecture News , Proceedings of the 30th annual international symposium on Computer architecture ISCA '03**, Volume 31 Issue 2

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